Dunes Brochure:

In this activity you are to design and create a brochure of the Dunes succession trail. Your brochure should include pictures, data, and scientific comments that describe and explain each stage of the trail. You should use this data sheet as the template for your brochure. The brochure that you hand in, however, should be clean, neat, and well organized. Remember that all pictures should have labels that explain what you are drawing. Also remember to incorporate your data into your written descriptions. These descriptions should explain how the biotic and abiotic factors interact at each stage of succession. Your overall brochure should teach the reader about ecological succession and how it can be seen at the Indiana Dunes State Park.

1. The Beach:
*Look for the special community that lives here. Recall that only a few thousand years ago, the shoreline was a mile inland. Describe how the beach community helps begin the process of succession.*

Light intensity: ___________ Wind intensity: ___________ Temperature: ___________

Percolation: ___________

Picture: ____________________

Description:


2. Dune Builder:
*Identify the dominant dune builder grass and explain how it builds dunes.*

Light intensity: ___________ Wind intensity: ___________ Temperature: ___________

Percolation: ___________

Picture: ____________________

Description:
3. Intradunal Pond:
   *How do you think this pond was formed? What abiotic force could have carved out this channel?*
   
   Light intensity: ___________  Wind intensity: ___________  Temperature: ___________

   Percolation: ______________

   Picture:

   Description:

4. Lee Side:
   *The lee side is the protected slope, describe the new dune grass that is dominant here. Why do you think this grass flourishes on the lee side of the dune?*

   Light intensity: ___________  Wind intensity: ___________  Temperature: ___________

   Percolation: ______________

   Picture:

   Description:
5. Jack Pines:
Pines are common in a cold taiga community. Why do you think they are found here?
Light intensity: ____________ Wind intensity: ____________ Temperature: ____________

Percolation: ____________
Picture: ____________

Description: ____________

6. Blowout:
Describe the cause of this blowout, was it natural or caused by man?
Light intensity: ____________ Wind intensity: ____________ Temperature: ____________

Percolation: ____________
Picture: ____________

Description: ____________
7. **Wooded Dune:**
*Examine the new life seen in this stage of succession.*

Light intensity: ____________  Wind intensity: ____________  Temperature: ____________

Percolation: ____________

Picture:

Description:

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8. **Sandmine succession:**
*This area was mined for sand. Describe how the sand miners affected the succession of this region.*

Light intensity: ____________  Wind intensity: ____________  Temperature: ____________

Percolation: ____________

Picture:

Description:
<table>
<thead>
<tr>
<th>Stage</th>
<th>Inclusion of data (.5 point)</th>
<th>Incorporation of data into description (1 point)</th>
<th>Accurate analysis of succession stage (1 point)</th>
<th>Useful labeled picture of succession stage (1 point)</th>
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<tbody>
<tr>
<td>1. Beach</td>
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<td>2. Dune Builder</td>
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<td>8. Sandmine</td>
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Neatness and organization: (2 points) __________

Comments: